

# Department of Examinations, Sri Lanka

நிலாகார போடு கல்விக் கால (ஏஷ் பேல்) விழாக்கல், 2017 கல்விக்கு கல்விப் பொதுத் தொகுதுப் பாத்திர (உயிர் தார்) பரிசீலனை, 2017 ஒக்டோபர் General Certificate of Education (Adv. Level) Examination, August 2017

## ගාහ ආර්ථික විද්‍යාව මණ්ඩල පොරුණියල් **Home Economics**

28 E I

பூர் தேவை  
இரண்டு மணித்தியாலும்  
*Two hours*

**Instructions:**

- \* Answer **all the questions**.
- \* Write your **Index Number** in the space provided in the answer sheet.
- \* Use of calculators is **not allowed**.
- \* Read the instructions given on the back of the answer sheet carefully.
- \* In each of the questions **1 to 50**, pick one of the alternatives from (1), (2), (3), (4), (5) which is **correct or most appropriate** and **mark your response on the answer sheet with a cross (x)** in accordance with the instructions given on the back of the answer sheet.

1. Which of the following principles states the ease of moving within the parts of the house?  
(1) Grouping. (2) Transition. (3) Circulation. (4) Gradation. (5) Flexibility.
2. In designing houses, the two feelings given by the vertical lines and diagonal lines are respectively  
(1) stability and flexibility. (2) tallness and activeness.  
(3) tallness and stability. (4) activeness and calmness.  
(5) calmness and flexibility.
3. Which of the following is the correct sentence regarding home decoration?  
(1) For the beauty of a flower arrangement, light coloured large flowers should be placed at the top whereas dark coloured small flowers at the bottom.  
(2) In painting a room, all the colours of the colour scheme are used in equal amounts.  
(3) Printed curtains are most suitable for a drawing room with a decorative carpet.  
(4) Light coloured curtains are suitable for the windows and doors of rooms having limited space.  
(5) A flower arrangement with anthurium flowers placed in a rough textured vase is suitable for a suite of steel chairs upholstered with rexine.
4. Which of the following steps could be used for a 12'x12' room to appear rectangular?  
(1) Applying a light colour to the ceiling.  
(2) Applying a dark colour to two parallel walls.  
(3) Applying the same colour to two adjacent walls.  
(4) Fixing windows with grills for two opposite walls.  
(5) Using curtains with vertical lines for the door.
5. Following are some statements given by a student regarding the value of a colour. Which is the correct statement from them?  
(1) The size of an object appears small, when value of a colour decreases.  
(2) The value of a colour does not change by the addition of black.  
(3) Value of a colour varies with the surrounding light.  
(4) Value represents the darkness or the lightness of a colour.  
(5) Value does not change when the opposite colours of the colour wheel are mixed.
6. From the following, select the correct sentence regarding Home Management.  
(1) In purifying water, about 5 gms of chlorine is added to 100 litres of water.  
(2) It is most suitable to use strong disinfectants in cleaning the commode.  
(3) When burning household refuse, complete combustion occurs.  
(4) In the septic tank, the solid waste is decomposed by the aerobic bacterial activity.  
(5) The dioxin gas evolved in burning polythene and plastic, pollutes the environment.

7. From these, which is the correct statement regarding incandescent (filamentous) bulbs?

- Generate white light.
- Shelf life is high.
- Bulbs are filled only with nitrogen gas.
- Release more heat.
- Less electrical energy is consumed.

8. Which of the following amino acids has the simplest molecular formula and structural formula?

- Lysine.
- Glycine.
- Leucine.
- Alanine.
- Isoleucine.

9. A food item containing monounsaturated fatty acids is

- butter.
- fish.
- meat.
- avocado.
- coconut oil.

10. The fatty acid that has the molecular formula  $C_{15}H_{31}COOH$  is

- Palmitic acid.
- Oleic acid.
- Linoleic acid.
- Linolenic acid.
- Arachidonic acid.

11. From the following, which is the correct statement regarding the Table of Recommended Dietary Allowances (2007)?

- Iron requirement does not change during infancy.
- Calcium requirement is same for both boys and girls during adolescence.
- Energy requirement remains unchanged during pregnancy.
- Vitamin A requirement increases during lactation.
- Protein requirement decreases in old age.

12. Which of the following gives a brick red precipitate when heated after adding Fehlings A and B solutions?

- Sucrose.
- Maltose.
- Glucose.
- Glucose and Maltose.
- Fructose and Sucrose.

13. Two agents that mostly enhance the absorption of dietary iron into the body are,

- Phytic acid and Oxalic acid.
- Palmitic acid and Stearic acid.
- Acetic acid and Linoleic acid.
- Folic acid and Pantothenic acid.
- Citric acid and Ascorbic acid.

14. From the following, which is the **incorrect** statement regarding the hormone Thyroxine?

- Maintains a healthy skin.
- Is a growth hormone.
- Controls the basal metabolic rate.
- Iodine is needed for its synthesis.
- Is important for proper foetal development.

15. Two micro minerals are

- Iodine and Magnesium.
- Calcium and Manganese.
- Copper and Sodium.
- Cobalt and Potassium.
- Iron and Zinc.

16. The B group vitamin Cyanocobalamin is named as

- vitamin B<sub>1</sub>.
- vitamin B<sub>2</sub>.
- vitamin B<sub>3</sub>.
- vitamin B<sub>6</sub>.
- vitamin B<sub>12</sub>.

17. Given below are some facts regarding vitamins.

A - Is stored in the liver.  
 B - Cholesterol is needed for its synthesis.  
 C - Enhances the absorption of calcium.  
 D - Is directly absorbed to the blood stream.  
 E - Is the least stable vitamin.

From these, the facts regarding vitamin D are

- A, B and C.
- A, C and E.
- C, D and E.
- A and B.
- D and E.

18. The total energy of a breakfast is 550 kcals. It contains 15 gms of protein and 10 gms of fat. The amount of carbohydrate in this meal is

- 80 gms.
- 90 gms.
- 100 gms.
- 110 gms.
- 120 gms.

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19. The carbohydrates present in milk, sugar and potato are respectively,  
 (1) glucose, fructose and amylopectin.  
 (2) lactose, glucose and pectin.  
 (3) amylose, maltose and inulin.  
 (4) lactose, sucrose and starch.  
 (5) galactose, dextrin and cellulose.

20. A note written by a student regarding fish and eggs includes the following facts.  
 A - Fish is a food item rich in haem iron.  
 B - Egg contains the proteins albumin and ovovitalin.  
 C - Fish is a food item rich in vitamin A and C.  
 D - Fish contain essential fatty acids.  
 E - Egg white is rich in fat, vitamin D and E.  
 From these, the correct facts are,  
 (1) A, B and C. (2) A, B and D. (3) C, D and E. (4) A and E. (5) B and D.

21. From the following, the food items containing about 20% of protein are  
 (1) meat and gram. (2) dhal and wheat.  
 (3) milk and fish. (4) egg and rice.  
 (5) soya bean and winged bean.

22. A list of facts regarding several food items are given below.  
 A - The protein legumin is present.  
 B - Vitamin C is abundant.  
 C - Provides energy to the body.  
 D - Contains polyunsaturated fatty acids.  
 E - Rich in iron and beta-carotene.  
 From these, the facts regarding green leafy vegetables are  
 (1) A and B. (2) A and D. (3) B and E. (4) C and D. (5) C and E.

23. The vegetables rich in the pigments chlorophyll, anthocyanin and flavon are respectively,  
 (1) leeks, bitter gourd and pumpkin. (2) sarana, ladies fingers and cabbage.  
 (3) kankun, tomato and cucumber. (4) spinach, beet and radish.  
 (5) beans, capsicum and brinjal.

24. Which of the following, is the most suitable vegetarian meal?  
 (1) Rice, potato curry, ladies fingers tempered, bitter gourd fried, Gotukola Sambol.  
 (2) Rice, cucumber curry, Ash plantains fried, mukunuwenna mallung, tomato salad.  
 (3) Rice, dhal curry, brinjals fried, cabbage tempered, beet salad.  
 (4) Rice, jak curry, ridged gourd curry, string beans fried, kohila sambol.  
 (5) Rice, gram curry, beans tempered, katurumurunga mallung, carrot sambol.

25. The deficiency of which of the following vitamins shows the symptoms such as delayed wound healing and bleeding from the gums?  
 (1) Vitamin A (2) Vitamin B<sub>1</sub> (3) Vitamin B<sub>2</sub> (4) Vitamin C (5) Vitamin E

26. The bacterium causing gastritis is  
 (1) *Streptococcus lactis*. (2) *Acetobacter aceti*.  
 (3) *Helicobacter pylora*. (4) *Escherichia coli*.  
 (5) *Lactobacillus bulgaricus*.

27. A food recommended for a heart patient's diet is  
 (1) salmon. (2) margarine. (3) curd. (4) prawns. (5) chicken.

28. Which of the following types of pastry is prepared by heating water, adding fat, mixing by adding flour and finally adding eggs?  
 (1) Puff pastry. (2) Patty pastry. (3) Short crust pastry.  
 (4) Choux pastry. (5) Flaky pastry.

29. Malnutrition is much prevalent among  
 (1) infants. (2) children in early childhood. (3) pregnant mothers.  
 (4) lactating mothers. (5) elderly.

30. When frying cutlets, the heat is transferred through  
 (1) conduction. (2) convection. (3) conduction and convection.  
 (4) conduction and radiation. (5) convection and radiation.

31. From the following, which is the correct statement regarding food preservation?  
 (1) Deep freezing destroys most of the bacteria in food.  
 (2) During pasteurization, the disease causing bacteria as well as their spores are destroyed.  
 (3) Condensed milk is prepared by spray drying.  
 (4) When preserving meat and fish, sodium nitrate is used.  
 (5) Most vegetables are blanched before preservation.

32. In which of the following parts of the digestive system, the digestion takes place by the enzymes; amylase, peptidase and renin respectively?  
 (1) Small intestine, stomach and duodenum.  
 (2) Mouth, duodenum and stomach.  
 (3) Small intestine, mouth and stomach.  
 (4) Duodenum, small intestine and stomach.  
 (5) Mouth, small intestine and duodenum.

33. The substances that are absorbed into the large intestine are  
 (1) acids and gases. (2) glucose and fructose. (3) glycerol and fatty acids.  
 (4) amino acids. (5) calcium and magnesium.

34. From the following, which is the **incorrect** statement regarding the process of metabolism?  
 (1) Excessive ketone bodies formed in the fat metabolism increases the acidity of blood.  
 (2) The amino group of an amino acid is removed during deamination.  
 (3) The hormone epinephrine which converts glycogen to glucose is synthesised in the thyroid gland.  
 (4) Glycolysis is an anaerobic process.  
 (5) Production of energy in the body is a catabolic process.

35. The factor which determines the sex of a child is  
 (1) the type of sex chromosomes of the mother.  
 (2) the type of sex chromosomes of the father.  
 (3) the type of sex chromosomes of the mother and father.  
 (4) the number of sex chromosomes in the mother.  
 (5) the number of sex chromosomes in the father.

36. From the following, what is the process that occurs during pregnancy?  
 (1) The hormone oxytocin acts in the maturation of ova.  
 (2) Several mature ova are released from ovaries in a month.  
 (3) The ovum is fertilized within 48 hours of ovulation.  
 (4) The embryo gets implanted in the uterus within three days of fertilization.  
 (5) Unfertilized ova are discharged from the body through menstruation.

37. A characteristic of development of the foetus during the third trimester of pregnancy is  
 (1) beginning to develop fingers and toes.  
 (2) onset of the heart beat.  
 (3) the activation of digestive enzymes.  
 (4) the commencement of foetal movements.  
 (5) the functioning of the excretory system.

38. From the following, which is the correct statement regarding infancy?  
 (1) The weight of the infant decreases within the first few days after birth.  
 (2) The infant starts smiling in sleep at the age of two months.  
 (3) Generally, in infants the milk teeth erupt at four months.  
 (4) The infant gains the ability to walk without a support around eight months.  
 (5) The birth weight of the infant is trebled by the age of nine months.

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39. From the following, what is the correct statement regarding the vaccination of a child according to the National Immunization Programme (2007)?

- BCG vaccine is given to the child after the completion of four weeks.
- When the child completes two months, the first dose of pentavalent vaccine is given.
- JE vaccine is given to the child after the completion of six months.
- When the child completes twelve months, fourth dose of Oral Polio Vaccine is given.
- When the child completes three years, DT vaccine is given.

40. Two activities most suitable for finer muscle development of a child of four years are

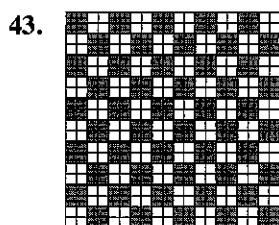
- Drawing pictures and playing with movable toy vehicles.
- Collage crafting and rolling an inflated tube.
- cutting shapes with scissors and joining dotted lines.
- drumming and clay modelling.
- colouring a picture and throwing a ball.

41. An unfavourable behavioural pattern in the social life of a child of late childhood is

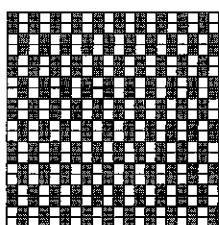
- self-esteem.
- imitation.
- self-centredness.
- competitiveness.
- flexibility.

42. Select the **incorrect** statement regarding the characteristics of the development of a child in late childhood.

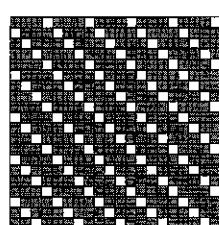
- Able to express ideas clearly.
- Uses trial and error method in learning.
- Shows socialized behavioural patterns.
- Tries to control expression of emotions.
- Tends to obey rules and respect morals.



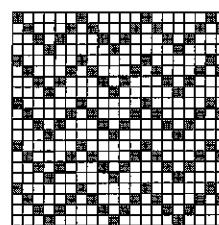
A



B



C



D

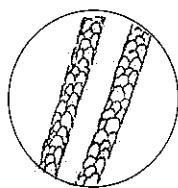
From the above diagrams, matt weave and regular twill weave are shown respectively by

- A and B.
- A and C.
- B and C.
- B and D.
- C and D.

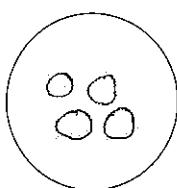
44. Two ways of finishing the raw edges of an open seam are

- using blanket stitch and running stitch.
- using back stitch and tacking.
- using tacking and overlocking.
- using running stitch and back stitch.
- overlocking and using blanket stitch.

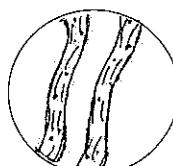
45.



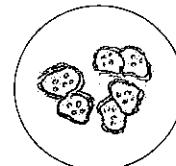
1 (a)



1 (b)



2 (a)



2 (b)

The diagrams 1 (a), 1 (b) and 2 (a), 2 (b) show the microscopic appearance of longitudinal and cross sectional views of two fibres.

These two fibres are respectively,

- cotton and nylon.
- silk and rayon.
- wool and cotton.
- nylon and rayon.
- wool and silk.

46. Following are some statements given in a student's note.

- A - The ultra violet rays of sunlight when fallen on silk fabric will not damage its fibres.
- B - Running stitch is used to sew the lines of the design in quilting.
- C - When burning rayon fibres, the odour of burning hair is evolved.
- D - The fabric could be straightened by pulling diagonally.
- E - When drafting the shirt block, ease allowance is added after calculating the chest measurement.

The correct statements from these are

(1) A and B. (2) B and D. (3) C and D. (4) A, C and E. (5) B, D and E.

47. A finish given to remove creases of woven fabrics is

- (1) calendering. (2) mercerizing.
- (3) sanforizing. (4) bleaching.
- (5) tentering.

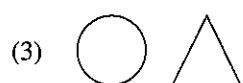
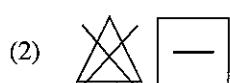
48. The materials and tools needed to transfer the block of the saree jacket to the fabric are

- (1) measuring tape, tailor's chalk and tracing wheel.
- (2) tracing wheel, carbon paper and pins.
- (3) pins, tailor's chalk and tracing wheel.
- (4) carbon paper, measuring tape and pins.
- (5) tailor's chalk, carbon paper and measuring tape.

49. Following are some statements given by students regarding the care of fabrics. Select the correct statement from them.

- (1) Since washing soap contain more alkali, dirt from fabrics is removed easily.
- (2) Permanent hardness is caused by the carbonates of calcium and magnesium.
- (3) Bleaching powder which is used in removing stains is an oxidising bleach, whereas Javelle water is a reducing bleach.
- (4) The surface tension of water increases by the addition of washing soap.
- (5) When stearic acid react with caustic soda, soap and glycerol are formed.

50. Select the symbols that should be present in the care label of a garment to denote 'bleaches should not be used' and 'to be dried on a flat surface' respectively.



\* \* \*

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கால அரசிக் விடையாவ் II  
மனைப் பொருளியல் II  
**Home Economics** II

28 E II

ஆடை துறை  
மூன்று மணித்தியாலும்  
*Three hours*

### Instructions:

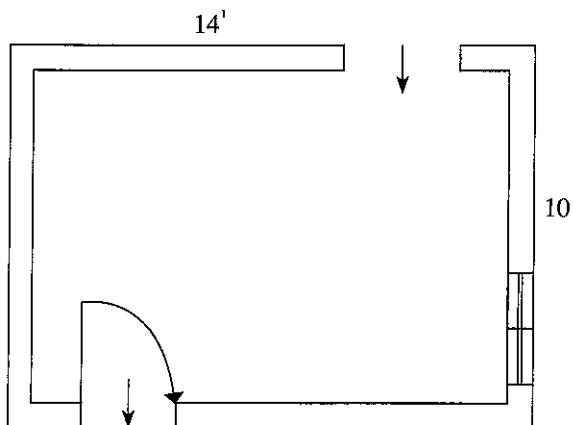
\* Answer **three** questions from **Part I** including question **No. 1** and answer **four** questions from **Part II** including question **No. 5**.

## Part I

(Answer three questions including question No. 1 and two others.)

1. The organizers of the exhibition, 'Home' stated that it was very successful. The viewers of the exhibition had the opportunity to get awareness regarding all the steps to be followed from planning of a house to its decoration. Along with the models of houses, there were samples of different building materials as well. The household linen and accessories displayed in the exhibition were also attractive.
  - (i) Mention **three** building materials used in building houses and write **two** advantages and **two** disadvantages of each.
  - (ii) In the decoration of models of houses, Rhythm was applied in two ways; 'Opposition' and 'Radiation'.
    - (a) Identify 'Opposition' and 'Radiation'.
    - (b) Illustrate an instance each, how 'Opposition' and 'Radiation' are shown in the models of houses.
  - (iii) Write notes on
    - (a) The selection of accessories for different places in a house.
    - (b) Planning a house so as to protect privacy.
  - (iv) Decorative table clothes were also exhibited. State the points to be considered,
    - (a) when selecting materials required for sewing a table cloth.
    - (b) in constructing a table cloth.
  - (v) Videos on decoration of infants' rooms as well as layettes were also played. Develop a pre-plan for constructing a cot sheet.
2. (i) (a) State the physical properties of animal fibres.  
(b) Explain the simple tests of identifying cotton fibres.
- (ii) Woven as well as nonwoven fabrics are available in the market.  
Mention **two** methods of manufacturing nonwoven fabrics and describe **one** of them.
- (iii) Explain the process of dry cleaning regarding the care of fabrics.
- (iv) Show with the help of diagrams, the construction of the collar of a gent's shirt.

3.



(i) (a) The room shown in the above plan is used as dining cum kitchen. Show the placement of furniture needed for this room.  
 (b) Priscilla, Cottage and Tier are three methods of curtaining. Show with named diagrams, **two** of these methods of curtaining that are suitable for the window of the room above.

(ii) Explain the points that should be considered in constructing the work units for the kitchen of this room.

(iii) (a) Identify 'split complementary colour scheme'. Give an example for the same.  
 (b) Describe how this room could be decorated using the above colour scheme.

4. (i) Explain how the home garden could be planned so as to enhance its beauty.  
 (ii) Describe the  
     (a) working  
     (b) use  
     (c) maintenance  
     of a rice cooker.  
 (iii) Show with the help of diagrams, how the back dart of the basic bodice block could be eliminated when drafting the saree blouse.  
 (iv) Explain,  
     (a) decoration of garments using herringbone stitch/Lazy Daisy stitch.  
     (b) the flat seam.

## Part II

(Answer **four** questions including question No. 5 and **three** others.)

5. Some facts revealed from a survey regarding adolescents are given below.

- There is a tendency of having nutritional disorders among adolescents.
- Some adolescents show behavioural problems.
- It is necessary to provide systematic career guidance services for adolescent school leavers.

(i) Name **three** nutritional requirements of adolescents and explain how each of these requirements is important for adolescence.  
 (ii) Comment on the facts which interfere with the proper nutritional status of adolescents.  
 (iii) Explain the steps to be followed when preparing 'fish buns' at home which is popular among adolescents.  
 (iv) Give **four** behavioural problems that could be seen among adolescents.  
 (v) Discuss the importance of career guidance services for adolescents in order to face the future successfully.

6. (i) Explain,  
(a) low birth weight  
(b) weight gain during pregnancy

(ii) Describe,  
(a) the measurements and tests that are carried out in a maternal clinic.  
(b) the iron supplementation during pregnancy.

(iii) Review the role of parents in training good habits in children of early childhood.

(iv) It is important to plan 'outdoor activities and outdoor games' in an early childhood development centre. Explain the benefits of these for the child.

7. Unhealthy lifestyle highly influences the occurrence of non-communicable diseases in Sri Lanka.

(i) What is meant by 'Unhealthy lifestyle'?

(ii) State **four** facts that cause constipation.

(iii) Obesity increases the risk for various disease conditions. Explain how obesity affects the occurrence of **two** such disease conditions.

(iv) With regard to the disease conditions mentioned by you in (iii) above, discuss the changes to be made in the diet of a person suffering from **one** of them.

8. (i) Define 'Nutritional Problems'.

(ii) State the advantages of consuming fermented foods.

(iii) Describe **four** functions of vitamin A in the body.

(iv) Calcium deficiency could be shown during various stages of life cycle. Explain the symptoms of calcium deficiency seen among the children of age 0-5 years.

9. (i) Mention **four** table manners/ table etiquette that should be followed when consuming food.

(ii) (a) Name **three** different agents used in food preservation.  
(b) Identify one food each, that is preserved using each of the agents mentioned by you in (ii) (a).  
(c) Explain how each of the above agents contributes in preserving these foods.

(iii) Explain the steps to be taken for the intellectual development of children in late childhood.

(iv) 'There are instances of adolescents going astray due to the misuse of data on the internet'. Discuss.

\* \* \*